



PE902792

~~W639~~
~~W639~~

W639.

FLYING FISH-1

WELL COMPLETION REPORT
FLYING FISH NO. 1

OFFSHORE VICTORIA
PERMIT TO EXPLORE 8
W639

N.S.W. OIL AND GAS COMPANY N.L.

WELL COMPLETION REPORT

FLYING FISH NO. 1

OFFSHORE VICTORIA

PERMIT TO EXPLORE 8

By Wm E. GARDNER

March 1972

PLANET MANAGEMENT AND RESEARCH PTY LTD. REPORT NO. 1022

CONTENTS

I SUMMARY

1. Drilling
2. Geological

II WELL HISTORY

1. General Data
2. Drilling Data
3. Formation Sampling
4. Logging and Surveys
5. Testing

APPENDICES

1. Description of Cuttings
2. Interpretation of Electrical Logs

ENCLOSURES

1. Location Map Flying Fish No. 1.
2. Seismic Reflection Two Way Time Interval Structure Map Latrobe Coal Measures.
3. Induction Log with Interpretive Lithology
4. Grapholog - Flying Fish No. 1
5. *Rate of Penetration Log*

I SUMMARY

1. Drilling

Flying Fish No. 1 was drilled in 86 feet of water off the southeastern coast of Victoria on Petroleum exploration permit Vic/P8. The co-ordinates of the well are:

Latitude 38^o 20' 50.6" S (see Enclosure No. 1)
Longitude 147^o 21' 52.2" E

The drilling vessel, Glomar Conception, arrived on the Flying Fish No. 1 location at 0700 hours, 6th November 1971. Anchors were set and tested, poor holding conditions necessitated the running of four secondary anchors.

At 1400 hours, 7th November, the well was spudded in using a 26" bit and a 36" hole opener. The 36" hole was drilled to 160 feet at which point one joint of 30" casing was landed in the base plate and cemented to surface. The 26" bit was re-run and used to drill to 670 feet. When pulling out of the hole preparatory to running 20" casing, the 30" casing was dislodged. It was retrieved, stabbed into the base plate and recemented. After circulating the hole clean, 20" casing was landed at 638 feet and subsequently cemented in place; the BOP stack and marine riser were then run and tested. A 15" bit and 17½" hole opener were used to drill to 2530 feet; 13 3/8" casing was then run to 2504 feet and cemented. Following the testing of the BOP's and 13 3/8" casing, the well was drilled to a total depth of 6520 feet utilizing 12¼" bits. As no accumulation of hydrocarbons were encountered, drilling was suspended at this depth; three cement plugs were set, and the well was abandoned after recovering the well head and 30" casing. The base plate had settled into the sea floor and efforts to recover it were unsuccessful. An investigation by divers showed that no obstruction was present.

The total elapsed time from the dropping of the first anchor to releasing the rig was 25.94 days; 11.9 hours were lost due to rough seas.

2. Geological

Flying Fish No. 1 was designed to test prospective reservoir sands of the Latrobe Valley formation on a closed anticline delineated by seismic surveying (Enclosure 2). The structure is located approximately 17 miles west of Barracouta No. 1 and is on trend with the Barracouta anticline.

The primary objectives of the test were Latrobe Group sands known to be oil bearing at Barracouta. These sands are approximately 1000 feet below the unconformable top of the Latrobe Group at Barracouta. The secondary objective was the sand section lying immediately below the unconformity. This section produces gas at Barracouta and contains gas at the shut-in Golden Beach gas field.

Flying Fish No. 1 registered a minor show of gas on the gas chromatograph at the top of the Latrobe Group sand; however, no show was evident in cuttings, and Electric logs analysis indicated that the zone was water saturated. No shows were encountered in the equivalent of the Barracouta oil sand which was the primary objective. Cuttings examination and Electric log correlations indicated that intraformational seals in the form of siltstone and shale present at Barracouta in the objective interval are not as well developed at Flying Fish and apparently do not constitute effective seals, thus precluding the entrapment of hydrocarbons.

The following stratigraphy was encountered in Flying Fish No. 1.

<u>Age</u>	<u>Formation Name</u>	<u>Drilled Depth</u>	<u>Sub Sea Depth</u>	<u>Thickness</u>
Recent Pleistocene	-	Sea floor 119'	- 86	?
Miocene	Gippsland Limestone	?	?	2434' +
Miocene to Oligocene	Lakes Entrance	3104'	- 3072'	484'
Eocene to Upper Cretaceous	Latrobe Group	3588'	- 3556'	2936' +

Gippsland Limestone

As cuttings were returned to the sea floor to a depth of 670 feet no sample top of this unit is available; for the same reason, the exact thickness of the overlying section is not known.

670 - 690'	<u>Calcarenite</u> , light grey to grey green, carbonaceous specks, traces of glauconite and <u>Sand</u> , loose, coarse to very coarse.
690 - 1100'	<u>Coquina</u> (skeletal limestone), white, cream and light grey; consists of fragments of bryozoa, corals, molluscs and forams.
1100 - 1447'	<u>Marl</u> , light grey and cream, carbonaceous specks, traces of glauconite.
1447 - 1537'	Coquina, as above
1537 - 2135'	<u>Marl</u> , as above, grading into <u>Siltstone</u> , medium to dark grey.
2135 - 3103'	<u>Siltstone</u> , light medium and dark grey, soft to friable, calcareous, fossiliferous, traces of pyrite and glauconite, stringers of skeletal limestone in the middle of the interval.

Lakes Entrance Formation

- 3103 - 3257' Siltstone, as above and Shale green-grey, blocky, calcareous, fossiliferous, slightly glauconite with stringers of Skeletal Limestone.
- 3257 - 3588' Shale, green-grey and brown-grey, blocky, fossiliferous, calcareous; abundant glauconite and pyrite below 3525 feet.

Latrobe Group

- 3588 - 3970' Sandstone, clear to milky, coarse to pebbly, unconsolidated, some interbeds of calcareous sandstone.
- 3970 - 4143' Coal, dark brown and black with Sandstone as above.
- 4143 - 4272' Sandstone, as above.
- 4272 - 5370' Sandstone, and Coal as above with minor interbeds of Siltstone and Mudstone, dark brown and pink, carbonaceous.
- 5370 - 6260' Sandstone, as above with interbeds of Siltstone, as above, trace of coal.
- 6260 - 6520' Sandstone, as above with traces of grey lithics, interbeds of Siltstone as above

See Enclosure No. 3 for interpreted lithology.

II WELL HISTORY

1. General Data

- i) Well name and number: Flying Fish No. 1
- ii) Name and address of operator:
N.S.W. Oil and Gas Company N.L.
9th Floor, United Insurance Building,
280 George Street,
SYDNEY. N.S.W. 2000
- iii) Name and address of tenement holder:
B.O.C. of Australia Limited,
10 Stirling Highway,
NEDLANDS. W.A. 6009
- iv) Details of Farmout from Gippsland Offshore Consortium:
N.S.W. Oil and Gas Company N.L. has the right to earn a 50% working interest in the Flying Fish block Vic/P8 by drilling a test well to 6500 feet or 500 feet into a pre-Latrobe formation, which ever be the shallower.

- v) District: Offshore Victoria (1:250,000 map coverage Warragul)
- vi) Location: Latitude 38⁰ 20' 50.6" S
Longitude 147⁰ 21' 52.2" E
- vii) Elevation: a) Surface: Sea level
b) Sea bottom - 86' (zero tide)
c) Drill floor 32 feet
- viii) Total Depth: 6520 feet (Driller)
6524 feet (Schlumberger)
- ix) Date vessel dropped anchor: 6th November 1971
- x) Date drilling commenced: 7th November 1971
- xi) Date total depth reached: 27th November 1971
- xii) Date well abandoned: 29th November 1971
- xiii) Date rig released: 2nd December 1971
- xiv) Drilling time in days to T.D.: 21 days
- xv) Status: Plugged and abandoned - Three cement plugs emplaced.
See Drilling Data (xi) for details.

2. Drilling Data

- i) Name and address of Drilling Contractor:
Global Marine Drilling Company,
89A Raymond Street,
SALE. VIC. 3850
- ii) Drilling Plant :
Make: National
Type: 1625 DE
Rated Capacity: 20,000 feet with 5" drill pipe
Motors: Two GE RI 752 electric motors
- iii) Derrick: Global Marine Special design 142' x 61' x 38'
galvanized, 1,000,000 lb hookload.

iv) Pumps:

Make: National
 Number: Two
 Type: N-1300 duplex
 Size: 7 $\frac{1}{4}$ " x 16"
 Motors: Dual GE 752 RI electric motors independently driven.

v) Blowout Preventer Equipment:

Make:	Hydril	Cameron
Size:	16 3/4"	16 3/4"
Type:	"GK" Bag type	Triple "U"
Working Pressure:	5000 psi	5000 psi

vi) Hole Sizes and Depth:

(Related to D.F.)	36"	to	160'
	26"	to	670'
	17 $\frac{1}{2}$ "	to	2530'
	12 $\frac{1}{4}$ "	to	6520'

vii) Casing and Cementing Details:

Size (inch)	30	20	13 3/8
Weight (lb/ft)	300	94	61 (11 Jts) 54 (51 Jts)
Grade	1" wall	X-52	J-55
Range	3	3	3
Setting Depth	150'	638'	2504'
Location of shoe, collar and centralizers	Shoe 150'	Collar 600' Shoe 638'	Collar 2462' Shoe 2504' Cent. 2494' Cent. 2452' Cent. 2414'
Quantity of cement used. (sacks)	150	1100	1700
Cemented to:	Sea bottom 118'	120'	130'
Method used	Displacement	Float & Shoe	Float & Shoe

viii) Drilling Fluid

Salt water with returns to ocean floor was used to drill to 670 feet prior to setting 20" casing. Sea water continued to be used, with returns over the Shaker to 1000 feet, where the system was converted to a fresh water and gel mud.

Mud and Chemicals Used:

Aqua-Gel	475 sacks	47,500 lbs
Barite	1275 sacks	127,500 lbs
Caustic	12 drums	1,680 lbs
CC-16	75 sacks	3,750 lbs
Dextrid	149 sacks	7,450 lbs
Q-Broxin	93 sacks	1,050 lbs

ix) Water Supply

Fresh drilling water was transported to the "Conception" by the M/V's "Smit Lloyd 33" and "Sand Pedro Sound" from Barries Beach.

x) Perforation and Shooting Record: Nil

xi) Plugs:

Depth (ft)	142 - 200	2366 - 2575	3535 - 3691
Cement (sacks)	50	200	200
Checked	Yes	Yes	Yes

xii) Fishing Operations

a) While making a connection at 417 feet the ship heaved, kicking the slips out of the rotary table and causing the drill string to drop down the hole. Ran in with overshot and retrieved fish on first attempt.

b) Prior to setting 20" casing, 30" was dislodged and fell on to the sea floor. It was picked up, stabbed into the base plate and cemented to surface with 150 sacks.

xiii) Side Tracked Hole: Nil

3. Formation Sampling

i) Ditch Cuttings

Cuttings were collected from the shale shaker from 670 feet to total depth. As drilling rates were high, samples were caught at 30 foot intervals to 2530 feet below which 10 foot samples were collected. The samples were caught, washed and lagged to correct for uphole time by Core Lab personnel under the supervision of N.S.W. Oil and Gas's wellsite Geologists.

The cuttings are representative of the labelled depth. Complete sets of washed and dried cuttings have been lodged with the Victorian Mines Department and BOC of Australia Ltd. N.S.W. Oil and Gas has retained an unwashed cut. A description of cuttings appears as Appendix 1.

- ii) Coring: No cores were cut.
- iii) Sidewall Sampling: No side wall samples were attempted.

4. Logging and Surveys

i) Electrical Logging

Schlumberger Seaco carried out all wire line logging. The following logs were run. 2" and 5" to 100 foot scales used on all logs.

Induction Electrical Log	638' to 6524'	(2 runs)
Compensated Formation Density Log	638' to 6524'	(2 runs)
Gamma Ray Log	118' to 6524'	(2 runs)
Laterolog	2504' to 6520'	(1 run)
Caliper	638' to 6520'	(2 runs)
Proximity-Microlog	2505' to 6524'	(1 run)

An interpretation of the logs appears as Appendix 2.

ii) Penetration rate log and gas log

Continuous logging of rates of penetration and of mud gas was carried out by Core Lab. See Enclosure No. 4.

iii) Deviation Surveys

Bore hole deviation was obtained using a TOTCO Drift Indicator. Below is a tabulation of deviation readings.

<u>Depth</u>	<u>Deviation</u>
630'	$\frac{1}{4}^0$
1880'	1 $\frac{3}{4}^0$
2530'	2 $\frac{1}{2}^0$
3717'	2 0
5194'	1 0
6520'	1 $\frac{1}{2}^0$

- iv) Temperature Survey: No temperature logs were run
- v) Other Well Surveys: Nil

5. Testing

No DST's or F.I.T.'s were run

APPENDIX 1

DESCRIPTION OF CUTTINGS

FLYING FISH NO. 1

DESCRIPTION OF WELL CUTTINGS

<u>Interval</u>	<u>%</u>	<u>Description</u>
142'		Sand, loose, quartzose, muscovite mica, sand size calcareous material, shell fragments
300'		Sand, loose quartzose medium grained, well sorted subrounded, some lithic fragments also, yellow to orange grains, common forams and shell fragments.
670 - 690'	50%	Calcarenite, light grey to grey green, black to dark green inclusions.
	30%	Sand, quartzose, coarse to very coarse, subrounded common lithic fragments.
	20%	Coquina, shell fragments. Mineral fluorescence on shell fragments
690 - 720'	40%	Calcarenite, as above
	60%	Coquina, as above
	Tr.	Sand Mineral fluorescence on some shell fragments
720 - 750'	10%	Calcarenite, as above
	90%	Coquina, mostly Bryozoa and coral
	Tr.	Quartz, very coarse loose, rounded.
750 - 780'	50%	Coquina, as above
	25%	Calcarenite, light grey, silty, grades to marl, carbonaceous specks and rare glauconite
	Tr.	Quartz, as above
780 - 810'	75%	Coquina, Bryozoans, coral, cream, rare
	25%	Calcarenite, grey grading to marl, as above
810 - 840'	90%	Coquina, as above
	10%	Calcarenite, as above
	Tr.	Quartz, grains, rounded
840 - 870'	95%	Coquina, trace glauconite
	5%	Calcarenite to marl
870 - 900'	95%	Coquina, as above
	5%	Calcarenite to marl as above
900 - 930'	75%	Coquina, cream to white, rare grey, fragments of Bryozoa, corals and molluscs.
	25%	Calcarenite, made of sand size particles of coquina, cream, some calcite
930 - 960'	95%	Coquina, as above
	5%	Calcarenite, as above
960 - 990'	50%	Coquina, as above
	25%	Calcarenite, as above
	25%	Sand, quartzose, loose medium to coarse grains subrounded to rounded
990 - 1020'	80%	Coquina, as above and some light yellow iron staining on some shell material.
	15%	Calcarenite, as above some grey silty (?)
	5%	Sand

1020 - 1050'	40% 10% 50%	Coquina, as above Calcarenite, as above Sand, loose quartz grains, coarse to very coarse rounded some grey lithic grains.
1050 - 1080'	80% 10% 10% Tr.	Coquina, as above Calcarenite, as above Sand, as above Mudstone, olive green, blocky, with sand grains.
1080 - 1110'	40% 30% 30%	Coquina, as above Sand, as above Calcarenite, as above grading to marl
1110 - 1140'	80% 20% Tr.	Coquina, as above Sand, as above Calcarenite, as above
1140 - 1170'	85% 5% 10%	Coquina, as above Sand, as above Calcarenite, as above
1170 - 1200'	50% 25% 25%	Coquina, as above Marl, light grey to cream, common carbonaceous specks, trace of glauconite Calcarenite, graditional with marl
1200 - 1230'	20% 60% 20%	Coquina, as above Marl, light grey and cream, specks glauconite (?) carbonaceous material, slightly silty to argillaceous Calcarenite, graditional with marl.
1230 - 1260'	25% 75%	Coquina, as above Marl, as above
1260 - 1290'	25% 75%	Coquina, as above Marl, as above
1290 - 1320'	75% 25%	Marl, as above Coquina, as above
1320 - 1350'	75% 10% 15%	Marl, as above Coquina, as above Sand, quartz, loose, coarse, rounded
1350 - 1380'	95% 5%	Marl, as above - finer Coquina, as above
1380 - 1410'	95% 5% Tr.	Marl, as above Coquina, as above Quartz, coarse
1410 - 1440'	95% 5% Tr.	Marl, as above (7% of dark inclusions) trace of glauconite Coquina, as above Quartz, coarse
1440 - 1470'	80% 20% Tr.	Marl, as above Coquina, as above, forams Quartz, as above fine, with rounded, iron stained.

1470 - 1500'	75% 25% Tr.	Marl, as above Coquina, as above Quartz, as above
1500 - 1530'	75% 20% 5%	Coquina, as above Marl, as above, Trace Glauconite Quartz, as above
1530 - 1560'	75% 25% Tr.	Coquina, as above Marl, Trace Glauconite, light grey to cream (minor black specks) Quartz, as above.
1560 - 1590'	50% 40% 10%	Coquina, as above Marl, Trace Glauconite, Minor inclusions Quartz, clear to yellow iron stained. Medium
1590 - 1620'	60% 35% 5%	Marl, as above Coquina, as above Quartz, as above
1620 - 1650'	75% 25% Tr.	Marl, (black speck inclusions) Trace Glauconite Coquina, as above Quartz, as above
1650 - 1680'	90% 10% Tr.	Marl, light grey and cream as above Coquina, as above Quartz, coarse grains, rounded.
1680 - 1710'	90% 10% Tr.	Marl, dark grey to cream Coquina, white Bryozoa Quartz, clear to limonitic coloured
1710 - 1740'	90% 10%	Marl, as above Coquina, as above
1740 - 1770'	90% 10% Tr.	Marl, as above Coquina, as above Quartz, as above
1770 - 1800'	90% 10% Tr.	Marl, as above Coquina, as above Quartz, as above
1800 - 1830'	70% 20% 10%	Marl, cream, white and light grey, traces of glauconite and medium grey mudstone inclusions Coquina, mostly bryozoa and coral debris also echinoid spines, common forams Quartz, very coarse, smooth, rounded grains
1830 - 1860'	90% 10% Tr.	Marl, as above, generally in finer fragments and "dirtier" Coquina, as above Quartz, as above
1860 - 1890'	95% 5%	Marl, as above Coquina, as above
1890 - 1920'	95% 5% Tr.	Marl, as above Coquina, as above Mudstone, medium grey, blocky, silty
1920 - 1950'	80% 20% Tr. Tr.	Marl, as above Coquina, as above Quartz, individual very coarse, well rounded grains Shale, dark, bright green, trace of Glauconite.

1950 - 1980'	90% 10% Tr.	Marl, as above Coquina, as above Quartz, as above
1980 - 2010'	90% 10%	Marl, becoming siltier Coquina, as above
2010 - 2040'	90% 10%	Marl, as above, trace of pyrite Coquina, as above
2040 - 2070'	95% 5%	Marl, as above Coquina, as above
2070 - 2100'	95% 5%	Marl, light grey to cream some dark inclusions, trace of glauconite. Coquina, forams, spines. Bryozoa fragments
2100 - 2130'	95% 5%	Marl, as above Coquina, as above
2130 - 2160'	95% 5%	Marl, as above Coquina, as above
2160 - 2190'	100%	Marl, grey to cream, fossiliferous. Numerous black inclusions. Trace of glauconite. Trace of pyrite
2190 - 2220'	100%	Marl, as above
2220 - 2250'	100%	Marl, as above
2250 - 2280'	80% 20%	Marl, as above Siltstone, medium grey to brownish grey, very calcareous - gradational with the marl.
2280 - 2310'	80% 20%	Marl, fossiliferous, Trace of glauconite Siltstone, medium to light grey, calcareous
2310 - 2340'	75% 25%	Marl, as above, trace of pyrite Siltstone, as above
2340 - 2370'	50% 50%	Marl, offwhite to light grey, silty, fossiliferous Siltstone, light to medium grey, Friable, fossiliferous in part, very calcareous, common carbonaceous specks, rare glauconite.
2370 - 2400'	90% 10%	Siltstone, as above - grades to very fine sandstone Marl, as above
2400 - 2430'	90% 10%	Siltstone, as above, some white in puggy balls possibly making mud Sandstone, medium to dark grey, gradational to silt as above.
2430 - 2460'	95% 5%	Siltstone, as above. Trace of Glauconite, Trace of Pyrite Sandy siltstone, as above
2460 - 2490'	90% 10%	Siltstone, as above, some free limestone (fine shell fragments) sandstone, as above 2400'
2490 - 2530'		NO SAMPLES
2530 - 2540'	5% 95% Tr.	Siltstone, grey and greenish - grey, calcareous fossiliferous some glauconite, pyritic, carbonaceous specks. Cement Sandstone, grey to greenish grey. Quartz, clear to opaque.

2540 - 2550	80%	Cement
	20%	Siltstone, as above
2550 - 2560'	60%	Siltstone, as above
	40%	Sandstone, similar to siltstone, trace pyrite
	Tr.	Quartz, free coarse to very coarse grains
2560 - 2570'	75%	Siltstone, white, light and medium grey, calcareous grades to very fine sandstone in part, common fossils
	25%	Sandstone, as for siltstone
	Tr.	Quartz, as above.
2570 - 2580'	100%	Siltstone, grey to offwhite, calcareous fossiliferous, carbonaceous specks.
	Tr.	Quartz
2580 - 2590'	50%	Siltstone, grey, argillaceous, calcareous, fossiliferous
	50%	Marl, buff to white, silty, fossiliferous
	Tr.	Pyrite
2590 - 2600	90%	Siltstone, grey, very argillaceous, fossiliferous (mostly forams)
	10%	Marl, buff to white, silty
	Tr.	Pyrite
2600 - 2610'	100%	Siltstone, calcareous, grey fossiliferous
	Tr.	Pyrite
2610 - 2620'	100%	Siltstone, grey to offwhite, calcareous partially argillaceous, fossiliferous, fissile, subangular, trace of calcite
	Tr.	Pyrite
2620 - 2630'	100%	Siltstone, as above
2630 - 2640'	100%	Siltstone, as above
2640 - 2650'	100%	Siltstone, grey to offwhite and buff coloured, calcareous, fossiliferous, fissile
	Tr.	Pyrite
	Tr.	Glauconite
2650 - 2660'	100%	Siltstone
2660 - 2670	100%	Siltstone, grey to buff, calcareous, fossiliferous
	Tr.	Pyrite
2670 - 2680'	100%	Siltstone, as above
2680 - 2690'	100%	Siltstone, grey, buff, offwhite, calcareous fissile, fossiliferous, carbonaceous specks.
2690 - 2700	100%	Siltstone, as above
2700 - 2710'	100%	Siltstone, grey, very argillaceous, fossiliferous Calcareous.
	Tr.	Pyrite
	Tr.	Glauconite
2710 - 2720'	100%	Siltstone, as above

2720 - 2730'	100%	Siltstone, with traces of brown and grey limestone
2730 - 2740'	100%	Siltstone, as above
2740 - 2750'	100%	Siltstone, as above, light grey colour dominant, the siltstone is soft and starting to make mud to a degree.
2750 - 2760'	100%	Siltstone, medium and dark grey, some light grey, friable to soft, calcareous, fossiliferous, traces of glauconite, pyrite and carbonaceous material.
2760 - 2770'	100%	Siltstone, as above, influx of light grey, soft, fair amount of limestone chips tan, grey and clear calcite.
2770 - 2780'	100%	Siltstone, as above
2780 - 2790'	100%	Siltstone, as above - some mud making tendency
2790 - 2800'	100%	Siltstone, as above
2800 - 2810'	100%	Siltstone, as above - common carbonaceous material, some very fine sand
2810 - 2820'	100%	Siltstone as above
2820 - 2830'	100%	Siltstone as above
2830 - 2840'	100%	Siltstone as above
2840 - 2850'	100%	Siltstone, as above
2850 - 2860'	100%	Siltstone, as above
2860 - 2870'	90% 10%	Siltstone, as above Mudstone, gradational to siltstone as above
2870 - 2880'	100% Tr.	Siltstone, as above, influx of fossil debris and free limestone Mudstone, as above
2880 - 2890'	90% 10%	Siltstone, as above Mudstone, as above
2890 - 2900'	90% 10%	Siltstone, as above Mudstone, as above
2900 - 2910'	90% 10%	Siltstone, as above influx of white to offwhite, trace of glauconite. Mudstone, free light grey green
2910 - 2920'	100% Tr.	Siltstone, as above mostly medium to dark grey, trace of glauconite. Mudstone, as above
2920 - 2930'	100%	Siltstone, as above
2930 - 2940'	50% 50%	Siltstone, as above Limestone, clear, white and pink
2940 - 2950'	60% 40%	Siltstone, as above Limestone, as above

2950 - 2960'	50%	Siltstone, light and medium grey, very glauconitic in part, fossiliferous, common pyrite.
	50%	Limestone, clear, white and pink, partly fossil debris
2960 - 2970'	40%	Siltstone, as above
	60%	Limestone as above, mostly pink
2970 - 2980'	50%	Siltstone, as above
	50%	Limestone, as above
2980 - 2990'	40%	Siltstone, as above
	60%	Limestone, as above
	Tr.	Quartz grains, coarse, clear and pink
2990 - 3000'	50%	Siltstone, as above
	50%	Limestone, as above
	Tr.	Quartz, as above
3000 - 3010'	40%	Siltstone, mostly medium and light grey
	60%	Limestone, as above, common glauconite
	Tr.	Quartz, as above
3010 - 3020'	60%	Siltstone, as above
	40%	Limestone, as above
	Tr.	Quartz, as above
3020 - 3030'	25%	Siltstone, as above
	75%	Limestone, as above
	Tr.	Quartz, as above
3030 - 3040'	50%	Siltstone, as above
	50%	Limestone, as above
	Tr.	Quartz, as above
3040 - 3050'	50%	Siltstone, as above, some sandy
	50%	Limestone, as above, influx of calcite
	Tr.	Quartz, as above
3050 - 3060'	50%	Siltstone, light grey green sandy, light to medium grey fossiliferous, traces carbonaceous material, rare glauconite.
	50%	Limestone, as above
	Tr.	Quartz, as above
3060 - 3070'	50%	Siltstone as above, more light and medium grey, influx glauconite
	50%	Limestone, as above, pyrite and glauconite.
3070 - 3080'	90%	Siltstone, grey to greenish grey, calcareous, fossiliferous, slightly glauconitic
	10%	Limestone, pinkish grey, calcarenite
3080 - 3090'	100%	Siltstone, as above - prominent forams and bryozoa
3090 - 3100	80%	Siltstone, light brown, slightly sandy, fossiliferous, calcareous
	20%	Siltstone, grey to grey green
	Tr.	Pyrite
3100 - 3110'	100%	Siltstone, light brown and grey, fossiliferous, calcareous
	Tr.	Glauconite and pyrite

3110 - 3120'	100%	Siltstone, as above
3120 - 3130'	90% 10% Tr.	Siltstone, as above Shale, grey, calcareous Glauconite and pyrite
3130 - 3140'	80% 20% Tr.	Siltstone, light brown, fossiliferous Shale, grey Limestone
3140 - 3150'	80% 20%	Shale, grey to grey green (Massive - mudstone) Siltstone, light brown as above
3150 - 3160'	90% 10% Tr.	Shale, as above - fossiliferous, calcareous Siltstone, as above Pyrite, limestone
3160 - 3170'	50% 40% 10%	Shale, grey, massive, as above Siltstone, as above Limestone, tan, calcarenite
3170 - 3180'		Same as above sample; Shale 50%, Siltstone 40% Limestone 10%.
3180 - 3190'		Same as above
3190 - 3200'	80% 10% 10%	Shale, grey to greenish grey, massive, fossiliferous Siltstone, as above Limestone, as above
3200 - 3210'	100% Tr.	Shale, grey to grey green, massive, very fossiliferous Glauconite and limestone
3210 - 3220'	100% Tr.	Shale, grey to green-grey, fossiliferous Glauconite
3220 - 3230	100% Tr.	Shale, greenish - grey, grey, olive to grey pyritic, occasional quartz grains. Glauconite
3230 - 3240'	100%	Shale, as above
3240 - 3250'	100% Tr.	Shale, grading in part to siltstone, brownish grey, grey, greenish-grey - massive, fossiliferous, calcareous. Glauconite, limestone
3250 - 3260'	100%	Shale, as above
3260 - 3270'	100%	Mudstone to shale, as above
3270 - 3280'	100%	Mudstone to shale - increase in glauconite
3280 - 3290'	100%	Mudstone to shale, as above
3290 - 3300'	100%	Mudstone to shale, as above
3300 - 3310'	100%	Mudstone to shale, as above
3310 - 3320'	100%	Mudstone to shale, as above
3320 - 3330	100%	Mudstone to shale, some white silt in balls, glauconite
3330 - 3340'	100%	Mudstone to shale, as above - common glauconite

3340 - 3350'	100%	Mudstone and shale as above, slight increase in fossil debris
3350 - 3360'	100%	Mudstone and shale, as above
3360 - 3370'	100%	Mudstone and shale, as above
3370 - 3380'	100%	Mudstone and shale, as above
3380 - 3390'	100%	Mudstone and shale, slightly glauconite
3390 - 3400'	100%	Shale, Mudstone and siltstone, slightly glauconite
3400 - 3410'	100%	Shale, mudstone and siltstone, as above
3410 - 3420'	100%	Shale, mudstone and siltstone, as above
3420 - 3430'	100%	Shale, mudstone and siltstone, as above
3430 - 3440'	100%	Shale, predominantly grey occasionally greenish-grey, fissile; subangular, calcareous, occasional quartz grains, glauconitic, slight pyritic
3440 - 3450'	100%	Shale as above, were green colouration
3450 - 3460'	100%	Shale, as above, some soft, puggy white silt in balls
3460 - 3470'	100%	Shale, as above
3470 - 3480'	100%	Shale, mottled brownish and greenish grey, partly glauconite, massive, very fossiliferous (forams)
3480 - 3490'	100%	Shale, mottled brownish and greenish grey, partly glauconite, massive, very fossiliferous (forams)
3490 - 3500'	100%	Shale, as above.
3500 - 3510'	100%	Shale, as above
3510 - 3520'	100%	Shale, as above, slight increase in glauconite
3520 - 3530'	100%	Shale, as above, strong influx of glauconite
3530 - 3540'	90% 10%	Shale, as above Glauconite - washed from from above
3540 - 3550'	80% 20%	Shale, grey-green and brown, massive, fossiliferous Glauconite - trace of pyrite
3550 - 3560'	100%	Shale and glauconite as above
3560 - 3570'	100%	Glauconitic shale plus first trace of clear quartz fine grains, free sand
3570 - 3580'	85% 5% 10%	Shale as above - with abundant glauconite Quartz sand grains, fine to coarse, clear to milky Pyrite
3580 - 3590'	50% 40% 5% 5%	Sand, quartz, fine to coarse, clear to milky angular to subrounded - free, unconsolidated quartz sand. Shale, as above Glauconite, as above Pyrite, as above

3590 - 3600'	60% 30% 5% 5%	Sand, as above Shale, as above Pyrite, as above Glauconite, as above
3600 - 3610'	40% 60%	Sand, as above, with aggregates of fine to medium Shale, pyrite and glauconite - probably cavings
3610 - 3620'	80% 20%	Sand, quartz, clear to milky, unconsolidated, fine to very coarse Shale, glauconitic, probably all cavings
3620 - 3630'	80% 20%	Sand, as above Caving, shale
3630 - 3640'	80% 20%	Sand, and mostly very coarse, well sorted Caving
3640 - 3650'	90% 10%	Sand, loose quartz, milky, clear rare coloured grains predominately very coarse, well sorted subangular to subrounded Cavings
3650 - 3660'	90% 10%	Sand, as above Cavings
3660 - 3670'	100%	Sand, as above - some aggregates of medium
3670 - 3680'	50% 10% 40%	Sand, quartzose clear to opaque and milky subangular to subrounded, well sorted. Pyrite and glauconite and pyritised glauconite Siltstone - grey glauconite
3680 - 3690'	40% 60%	Sandstone, quartzose, as above Sandstone, grey fine to very fine grained, indurated, carbonate cement.
3690 - 3700'	20% 80%	Sandstone, quartzose, as above Mudstone, as above, probable cavings
3700 - 3710'	20% 80%	Sandstone, 50/50 very coarse and very fine aggregates Cavings
3710 - 3720'	50% 50%	Sandstone, as above, some aggregates of angular coarse to very coarse. Cavings
3720 - 3730'	75% 25%	Sandstone, loose, quartzose, very coarse, subrounded and medium to coarse in aggregates, poorly sorted subangular Cavings, silt and shale
3730 - 3740'	90% 10%	Sandstone, loose quartzose, very coarse Cave, as above
3740 - 3750'	60% 20% 20%	Sandstone, as above Siltstone, brown, very carbonaceous, friable, may be very low grade brown coal Cave, as above
3750 - 3760'	70% 10% 20%	Sandstone, as above Siltstone, brown as above Cave, as above

3760 - 3770'	80%	Sandstone, as above, mostly medium, commonly in aggregates, carbonate cement.
	20%	Cave, as above.
3770 - 3780'	80%	Sandstone, quartzose, clear and milky coarse to very coarse, fair sorting, subangular to subrounded; medium to coarse in aggregates, angular to subrounded poor to fair sorting, carbonate cement commonly.
	20%	Cave, as above
3780 - 3790'	100%	Sandstone, as above, very coarse
	Tr.	Siltstone, brown, very carbonaceous
3790 - 3800'	100%	Sandstone, influx of fine to medium in aggregates, tight in part, carbonaceous; and very coarse, as above
3800 - 3810'	90%	Sandstone, very fine, fine and medium in aggregates, carbonate cement, tight and coarse to very coarse, loose.
	10%	Siltstone, dark brown, very carbonaceous, coaly in part.
3810 - 3820'	100%	Sandstone, as above, 70% very coarse 30% very fine to fine aggregates
	Tr.	Siltstone, as above
3820 - 3830'	100%	Sandstone, 50% fine to medium grained aggregates; 50% fine to very coarse, free sand
3830 - 3840'	100%	Sandstone, 25% as above, 75% as above
3840 - 3850'	100%	Sandstone, 25% as above, 75% as above
3850 - 3860'	80%	Sandstone, fine grains, poorly sorted, highly calcite cemented.
	20%	Sand, loose fine to very coarse, quartz
3860 - 3870'	50%	Sandstone, coarse to very coarse
	50%	Sandstone, very fine to fine in aggregates
3870 - 3880'	70%	Sand, quartz grains clear to milky white, no cement subangular to subrounded
	30%	Cave
3880 - 3890	50%	Sand, as above
	50%	Cavings, as above - plus brown, carbonaceous siltstone
3890 - 3900'	90%	Sandstone, as above
	10%	Siltstone, brown, as above
	Tr.	Coal, black brittle.
3900 - 3910	85%	Sandstone, as above
	10%	Siltstone, brown, very carbonaceous
	5%	Coal, black
3910 - 3920'	90%	Sandstone, as above
	10%	Siltstone, as above
3920 - 3930'	20%	Sandstone, quartz grains, coarse, no cement, subangular to subrounded
	80%	Cave, carbonaceous
3930 - 3940'	80%	Sandstone, very coarse as above, and aggregates of fine to medium, brownish carbonate cement
	20%	Siltstone, brown, carbonaceous, coaly
	Tr.	Coal, black.

3940 - 3950'	80% 20% Tr.	Sandstone, as above, traces of muscovite Siltstone, as above Coal, as above
3950 - 3960'	80% 20%	Sandstone, mostly aggregates of very fine to fine, carbonate cement, tight, some very coarse, loose Siltstone, as above
3960 - 3970'	100%	Coal, predominantly black - some dark brown
3970 - 3980'	100%	Coal, as above
3980 - 3990'	100%	Coal, as above
3990 - 4000'	50% 50%	Coal, as above Sandstone loose, quartzose, coarse to very coarse and fine to medium in aggregates, cemented by carbonate.
4000 - 4010'	90% 10% Tr.	Coal, black and brown, brittle, conchoidal fracture Sandstone, as above Siltstone, brown carbonaceous
4010 - 4020'	90% 10% Tr.	Coal, black and brown Sandstone, as above Siltstone, brown as above
4020 - 4030'	100% Tr.	Coal, as above Sandstone, in aggregates
4030 - 4040'	90% 10% Tr.	Coal, as above Sandstone, as above Siltstone to shale, light brown soft
4040 - 4050'	80% 10% 10%	Coal, black and dark brown, brittle, conchoidal fracture. Siltstone, medium brown, soft, carbonaceous Sandstone, fine to medium in aggregates, carbonate cement.
4050 - 4060'	40% 60% Tr.	Coal, as above Sandstone, light brown, pinkish, milky, very fine to medium grained, firmly cemented, tight, carbonate cement. Siltstone, as above
4060 - 4070'	100% Tr. Tr.	Coal, as above Siltstone, as above Sandstone, as above
4070 - 4080'	80% 20%	Coal, as above Sandstone, coarse to very coarse, white, clear and milky, some secondary crystal growth indicated.
4080 - 4090'	80% 20%	Coal, as above Sandstone, as above
4090 - 4100'	100%	Sandstone, very coarse, as above
4100 - 4110'	60% 15% 15% 10%	Siltstone, brown, carbonaceous Mudstone, brown Sandstone, fine to very coarse - unconsolidated Coal, as above
4110 - 4120'	100%	Coal, as above
4120 - 4130'	70% 30%	Sand, clear quartz, subangular - very coarse Coal, as above

4130 - 4140'	90% 10%	Coal, as above Sand, clear quartz, very coarse
4140 - 4150'	100%	Coal, black
4150 - 4160'	70% 30%	Sand, clear quartz, very coarse, subangular, unconsolidated Coal, as above
4160 - 4170'	100%	Sand, as above
4170 - 4180'	100%	Sand, as above
4180 - 4190'	100%	Sand, as above
4190 - 4200'	100%	Sand, clear to milky quartz, very coarse, subangular unconsolidated
4200 - 4210'	100%	Sand, as above
4210 - 4220	100%	Sand, as above
4220 - 4230'	100%	Sand, as above
4230 - 4240'	100%	Sand, as above
4240 - 4250'	100%	Sand, as above
4250 - 4260'	100%	Sand, as above
4260 - 4270'	60% 40%	Sand, clear to milky quartz, very coarse, subangular to subrounded Coal, black, vitreous, angular
4270 - 4280'	100%	Coal, black and dark brown
4280 - 4290'	50% 50%	Sand, as above Coal, as above
4290 - 4300'	80% 10% 10%	Sand, very coarse grained, unconsolidated Sandstone, fine to medium grained, calcite cemented Coal,
4300 - 4310'	80% 15% 5%	Sand, very coarse, as above Coal, as above Siltstone, dark brown, very carbonaceous
4310 - 4320'	80% 20% Tr.	Sand, very coarse, as above and fine to medium in aggregates, carbonate cement Coal, as above Siltstone, as above
4320 - 4330	80% 20% Tr.	Sand, as above Coal, as above Siltstone, as above
4330 - 4340'	100%	Coal, black and dark brown, subconchoidal fracture
4340 - 4350'	50% 50%	Coal, as above Sand, as above

4350 - 4360'	50%	Sand, very coarse, unconsolidated
	50%	Coal, as above
4360 - 4370'	100%	Sand, very coarse unconsolidated
4370 - 4380'	100%	Sand, as above
4380 - 4390'	100%	Sand, as above
4390 - 4400'	50%	Coal, black and dark brown
	50%	Sand, very coarse, unconsolidated
4400 - 4410'	90%	Coal, as above
	10%	Sand, as above
4410 - 4420'	70%	Coal, as above
	20%	Siltstone, brown, carbonaceous
	10%	Sand, as above
4420 - 4430	100%	Sand, as above
4430 - 4440	80%	Sand, as above
	20%	Coal, as above
4440 - 4450'	100%	Sand, as above
4450 - 4460'	90%	Sand, as above
	10%	Coal, as above
	Tr.	Siltstone, brown, very carbonaceous, soft
4460 - 4470'	100%	Sandstone, as above
4470 - 4480'	100%	Sandstone, as above
	Tr.	Coal, black
4480 - 4490'	100%	Sandstone, as above
4490 - 4500	50%	Sandstone, as above and very fine to fine in aggregates trace of pyrite
	30%	Siltstone, dark brown, very carbonaceous
	20%	Coal, black and dark brown
4500 - 4510'	60%	Sandstone, trace of very fine light greenish
	30%	Coal, as above
	10%	Siltstone, as above
4510 - 4520'	80%	Sand, as above
	20%	Coal, as above
	Tr.	Siltstone, as above
4520 - 4530'	90%	Sandstone, as above
	10%	Coal, as above
	Tr.	Siltstone, as above
4530 - 4540'	70%	Sandstone, as above
	30%	Coal, as above
	Tr.	Siltstone, as above, and white, sandy
4540 - 4550'	70%	Sandstone, quartzose, clear and milky, coarse and very coarse, in loose grains, angular (secondary growth ?) to subrounded, rarely round.
	30%	Coal, black predominates, some brown, subconchoidal fracture

4550 - 4560'	50% 50%	Sand, as above Coal, as above
4560 - 4570'	90% 10%	Sand, as above Coal, as above
4570 - 4580'	80% 20%	Sand, as above Coal, as above
4580 - 4590'	30% 70% Tr.	Sandstone, as above Coal, as above Siltstone, as above, brown, very carbonaceous
4590 - 4600'	50% 20% 10% 20%	Sandstone, as above Coal, as above Siltstone, as above Shale, buff, soft and white (kaolin ?) puggy
4600 - 4610'	90% 10%	Sandstone, as above Shale, as above
4610 - 4620'	100%	Sand, very coarse, unconsolidated
4620 - 4630'	100%	Sandstone, as above
4630 - 4640'	100%	Sandstone, as above
4640 - 4650'	100%	Sandstone, as above
4650 - 4660'	50% 50%	Sandstone, as above Coal, as above
4660 - 4670'	100% Tr.	Sand, as above Sandstone, very fine grained well sorted, friable non-calcareous
4670 - 4680'	100%	Sand, very coarse, unconsolidated
4680 - 4690'	100%	Sand, as above
4690 - 4700'	100%	Sand, as above
4700 - 4710'	100%	Sand, as above
4710 - 4720'	100%	Sand, as above
4720 - 4730'	100%	Sand, as above
4730 - 4740'	90% 10%	Sand, quartzose, no cement, subangular, free grains, clear to milky, very coarse, average diameter 1-3 mm. Coal, as above
4740 - 4750'	100%	Sand, as above
4750 - 4760'	100%	Sand, as above
4760 - 4770'	100%	Sand, as above
4770 - 4780'	100%	Sand, as above
4780 - 4790'	100%	Sand, as above
4790 - 4800'	100%	Sand, as above

4800 - 4810'	100% Tr.	Sand, as above Coal, black
4810 - 4820'	100% Tr.	Sand, as above Coal, as above
4820 - 4830'	40% 10% 50%	Mostly Cavings Siltstone to Clay White, soft, puggy Sand, as above
4830 - 4840'	30% 30% 40%	Siltstone, dark metallic brown, carbonaceous Coal, brown and black Sand, as above
4840 - 4850'	30% 20% 10% 40%	Siltstone, white kaolinitic, puggy Coal, as above Mudstone, light tan to light brown, soft Sandstone, very coarse, loose
4850 - 4860'	100%	Sandstone, as above
4860 - 4870'	100%	Sandstone, as above
4870 - 4880'	100%	Sandstone, as above
4880 - 4890'	100%	Sandstone, as above
4890 - 4900'	100% Tr.	Sandstone, as above Siltstone, brown, carbonaceous
4900 - 4910'	90% 10%	Sandstone, as above Coal, black and brown
4910 - 4920'	80% 10% 10%	Sandstone, as above Siltstone, grey brown, sandy Coal, as above
4920 - 4930'	90% 10% Tr.	Sandstone, Quartzose, clear, milky and rare coloured grain. very coarse to pabbly, good sorting, angular to subangular, minor subrounded Siltstone, light grey brown, sandy, carbonaceous streaks Coal, black and brown, conchoidal fracture
4930 - 4940'	100% Tr. Tr.	Sandstone, as above Siltstone, brown as above, and white, puggy Coal, as above
4940 - 4950'	100% Tr.	Sand, very coarse, unconsolidated Siltstone
4950 - 4960'	70% 30% Tr.	Clay, white to buff kaolin Sand, as above Siltstone, brown
4960 - 4970'	50% 40% 10% Tr.	Clay, as above Sand, as above Siltstone, as above Coal, as above
4970 - 4980'	80% 20% Tr.	Sand, as above Clay, as above Siltstone, as above, trace of pyrite

4980 - 4990'	80% 15% 5% Tr.	Sand, as above Clay, as above Coal, as above Pyrite
4990 - 5000'	80% 10% 10% Tr.	Sand, clear to milky, quartzose, very coarse average grain size 1-3 mm, subangular to subrounded well sorted. Siltstone, as above Clay, as above Pyrite
5000 - 5010	80% 10% 10%	Sand, as above with 5% hard, tight, fine grained dolomitic sandstone Siltstone, as above Clay, as above
5010 - 5020'	60% 20% 10% 10%	Sand, as above Sandstone, light brown, dolomitic, fine to medium grained, very hard, tight Siltstone, as above Clay, as above
5020 - 5030'	70% 30% Tr.	Sand, very coarse, unconsolidated Sandstone, fine to medium grained, dolomitic, hard, tight. Pyrite
5030 - 5040'	80% 10% 10%	Sand, quartzose, unconsolidated Sandstone, offwhite, translucent, dolomitic, tight Siltstone, as above
5040 - 5050'	80% 10% 10%	Sand, as above Sandstone, as above Siltstone, as above
5050 - 5060'	70% 10% 20%	Sand, as above Sandstone, fine to medium, hard, tight Clay, green, offwhite
5060 - 5070'	50% 10% 20% 10% 10%	Sand, as above Sandstone, as above Clay, light green, offwhite Siltstone, dark brown carbonaceous and buff, sandy Coal, as before
5070 - 5080'	30% 10% 40% 20% Tr.	Sand, as above Coal, as above Sandstone, as above Clay, pale green Pyrite
5080 - 5090'	20% 20% 25% 25% 10%	Sand, as above Sandstone, as above Clay, as above Siltstone, dark brown and buff Coal, as before
5090 - 5100'	20% 20% 20% 20% 20% Tr.	Sand, as above Sandstone, as above Clay, as above Siltstone, brownish, mauve Coal Pyrite

5100 - 5110'	20% 10% 60% 10% Tr.	Sand, quartzose, unconsolidated, subangular Sandstone, as above Mudstone, fine grained, pinkish, beige, pale green Coal, as above Pyrite	
5110 - 5120'	20% 40% 20% 20%	Sand, as above Mudstone, various colours as above Siltstone, light and dark brown, carbonaceous Coal	
5120 - 5130'	20% 30% 30% 20% Tr.	Sand, as above Siltstone, pink, pale green, carbonaceous flecks Mudstone, as above Coal, as above Pyrite	
5130 - 5140'	40% 30% 20% 10% Tr.	Sand, as above Siltstone, white, offwhite, pink with carbonaceous flecks Mudstone, offwhite, buff Coal, as above Pyrite	
5140 - 5150'	50% 10% 20% 20% Tr.	Sand, as above Sandstone, as above Mudstone, as above Siltstone, as above Coal, as above	
5150 - 5160	50% 20% 20% 10%	Sand, as above Mudstone, as above Siltstone, as above Sandstone, very fine, white to light brown	
5160 - 5170'	60% 20% 10% 10% Tr.	Sand, as above Mudstone, as above Siltstone, as above Sandstone, pyritic in part Coal	
5170 - 5180'	50% 20% 30% Tr. Tr.	Sand, coarse, quartzose, unconsolidated, average diameter 2mm, clear and milky Sandstone, offwhite, grey, tan Siltstone, offwhite, grey, pink Pyrite Coal, as above	
5180 - 5190'	60% 10% 20% 10%	Sand, as above Sandstone, as above pyritic in part Siltstone, as above and brown Mudstone, buff & grey	
5190 - 5200'	80% 20%	Sand, as above Mudstone	- 1st sample after trip - much cave
5200 - 5210'	70% 30% Tr.	Sand, coarse, unconsolidated, as above Mudstone, grey, grey-brown, calcareous - (cave ?) Coal, as above	
5210 - 5220'	60% 30% 10% Tr.	Sand, as above Mudstone, as above (cave ?) Siltstone, as above Coal, as above	
5220 - 5230'	90% 10% Tr.	Sand, as above Mudstone, as above Coal and pyrite	

5230 - 5240'	90% 10% Tr.	Sand, as above Mudstone, as above Coal and pyrite
5240 - 5250'	90% 10%	Sand, as above, trace of kaolinitic cement Mudstone, very soft
5250 - 5260'	100% Tr.	Sand, as above Pyrite
5260 - 5270'	90% 10%	Sand, as above Claystone, light grey, tan, non-calcareous
5270 - 5280'	80% 10% 10%	Sand, as above Sandstone, medium to coarse grained, with pyrite cement Mudstone and siltstone
5280 - 5290'	70% 30% Tr.	Mudstone and siltstone, pink Sand, quartzose, unconsolidated as above Pyrite
5290 - 5300	40% 30% 30%	Mudstone, predominantly pink Siltstone, Sand, quartzose, unconsolidated
5300 - 5310'	30% 40% 30% Tr.	Sand, as above Siltstone, predominantly pink, pinkish-brown, trace of buff Mudstone, predominantly pink, pinkish brown, minor pale green Pyrite
5310 - 5320'	40% 30% 30%	Mudstone, as above Siltstone, as above Sand, as above
5320 - 5330'	30% 30% 40%	Mudstone, as above Siltstone, as above Sandstone, as above
5330 - 5340'	100%	Coal, black, vitreous, conchoidal fracture
5340 - 5350'	100%	Coal, as above
5350 - 5360'	50% 30% 20%	Coal, as above Siltstone, predominantly pink Mudstone
5360 - 5370'	50% 30% 20%	Siltstone, predominantly pink, carbonaceous streaks Mudstone, predominantly pink, buff, non-calcareous Coal, as above
5370 - 5380'	10% 60% 30% Tr.	Sand, quartzose, poorly consolidated, average diameter 2mm, clear to milky Siltstone, pink, pinkish brown, offwhite, carbonaceous streaks, fine grained and grading to mudstone Shale, pink, offwhite, pale grey, fissile, occasional carbonaceous streaks. Pyrite

5380 - 5390'	10% 60% 30% Tr.	Sand, as above Siltstone, as above Shale, as above Pyrite	
5390 - 5400'	70% 20% 10% Tr.	Sand, as above Siltstone, as above Shale, as above Pyrite	
5400 - 5410'	20% 10% 70% Tr.	Sand, quartzose, unconsolidated, very coarse. 2.5 mm range Siltstone, as above Shale, as above Pyrite	
5410 - 5420'	20% 10% 70% Tr.	Sand, as above Siltstone, as above Shale, as above Pyrite	
5420 - 5430'	10% 50% 40% Tr.	Sand, as above Siltstone, as above Shale, as above Pyrite	
5430 - 5440'	10% 50% 40% Tr.	Sand, as above Siltstone, as above Shale, as above Pyrite	
5440 - 5450'		Same as above	
5450 - 5460'		Same as above	Very poor samples - abundant cave (very slow drilling) some coal, may be indigenous
5460 - 5470'		Same as above	
5470 - 5480'	20% 80%	Mudstone, buff Siltstone, pink to reddish-brown with carbonaceous streaks and minor coal interbeds.	
5480 - 5490'		1st sample after trip for bit - 90% cave Probably 100% siltstone and shale as above	
5490 - 5500	50% 50%	Siltstone, reddish-brown with carbonaceous streaks Mudstone, pink to buff (Poor sample - much cave)	
5500 - 5510'	90% 10%	Sand, very coarse to pebbly, subangular, unconsolidated Mudstone and siltstone, as above	
5510 - 5520'	90% 10%	Sand, as above Mudstone and siltstone, as above	
5520 - 5530'	90% 10% Tr.	Sand, as above Mudstone and siltstone, predominantly pink, pinkish brown Sandstone, consolidated, quartzose	
5530 - 5540'	90% 10%	Sand, quartzose, clear to milky, unconsolidated well sorted, subangular, in places pyritic Siltstone and mudstone, pinkish brown.	

5900 - 5910'	100%	Siltstone grading to fine grained, as above
5910 - 5920'	90% 10%	Sand, very coarse, subangular, unconsolidated Siltstone, as above
5920 - 5930'	100% Tr.	Sand, as above Pyrite
5930 - 5940'	100%	Sand as above
5940 - 5950'	100%	Sand as above
5950 - 5960'	100%	Sand as above
5960 - 5970'	100%	Sand as above
5970 - 5980'	100%	Sand as above
5980 - 5990'	90% 10%	Sand as above Siltstone, pink to red-brown, carbonaceous streaks
5990 - 6000'	80% 20% Tr.	Sand, as above Siltstone, as above Pyrite
6000 - 6010'	50% 50% Tr.	Sand, coarse, quartzose, average grain size 2 mm unconsolidated, well sorted, subangular Siltstone, pink-brown, grey, carbonaceous streaks and specks, even grains, moderately hard Pyrite
6010 - 6020'	80% 20% Tr.	Sand, as above Siltstone, as above Pyrite
6020 - 6030'	100% Tr. Tr.	Sand, as above Siltstone, as above Pyrite
6030 - 6040'	100% Tr.	Sand, as above Pyrite
6040 - 6050'	100% Tr.	Sand, as above Pyrite
6050 - 6060'	100% Tr.	Sand, as above Siltstone, as above
6060 - 6070'	100% Tr.	Sand, as above Siltstone, as above
6070 - 6080'	100% Tr.	Sand, as above Siltstone, as above
6080 - 6090'	90% 10% Tr.	Sand, as above Siltstone, as above Pyrite
6090 - 6100'	90% 10% Tr.	Sand, as above Siltstone, as above Pyrite

6100 - 6110'	100% Tr. Tr.	Sand, as above Siltstone, as above Pyrite
6110 - 6120'	100% Tr. Tr.	Sand, as above Siltstone, as above Pyrite
6120 - 6130'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite
6130 - 6140'	100% Tr.	Sand, as above Pyrite
6140 - 6150'	100% Tr.	Sand, as above Pyrite
6150 - 6160'	100% Tr. Tr.	Sand, as above Sandstone, fine Pyrite
6160 - 6170'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite
6170 - 6180'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite
6180 - 6190'	90% 10% Tr.	Sand, as above Mudstone, as before Pyrite
6190 - 6200'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite
6200 - 6210'	100%	Sand, as above
6210 - 6220	90% 10%	Sand, as above Sandstone, pinkish-brown, carbonaceous, grey, buff brittle, subangular
6220 - 6230'	70% 30%	Sand, as above Siltstone, pinkish-brown, carbonaceous and grey, buff, brittle
6230 - 6240'	30% 60% 10% Tr.	Sand, coarse quartzose Sandstone, fine, grey, pinkish-brown, offwhite, carbonaceous streaks and specks Siltstone, buff, pinkish-brown Pyrite
6240 - 6250'	100% Tr. Tr.	Sand, very coarse, subangular, unconsolidated Siltstone, as above Pyrite.
6250 - 6260'	90% 10% Tr.	Sand, as above Siltstone, as above Pyrite
6260 - 6270'	90% 10%	Sand, very coarse, pebbly, angular Lithics - grey, very coarse, pebbly
6270 - 6280		Same sand and lithics as above

5540 - 5550'	90% 10%	Sand, as above Siltstone and mudstone, as above
5550 - 5560'	90% 10%	Sand, as above Siltstone and mudstone, pinkish-brown, buff
5560 - 5570'	90% 10% Tr.	Sand, as above Siltstone, as above Pyrite (increased percentage)
5570 - 5580'	90% 10%	Sand, as above with pyrite Siltstone to fine sandstone
5580 - 5590	90% 10% Tr.	Sand, as above, pyritic cement in places Siltstone, pink and fine sandstone, quartzose, clear Pyrite (up to 5%)
5590 - 5600	90% 10% Tr.	Sand, as above, pyritic cement in places Siltstone, pink, carbonaceous streaks Pyrite, as above
5600 - 5610'	70% 20% 10% Tr.	Sand, as above, some with pyrite cement Siltstone, pink, pinkish-brown, buff Shale, pink, pinkish-brown, buff, cream Pyrite
5610 - 5620'		Same as above
5620 - 5630'		Same as above
5630 - 5640'	70% 20% 10% Tr.	Sand as above -- also some pyritic cemented sandstone Siltstone, pink to reddish brown - with carbonaceous streaks Mudstone, pink etc. as above Coal.
5640 - 5650'		First sample after new bit, mostly cavings
5650 - 5660'	10% 90% Tr.	Sand, coarse, unconsolidated, quartzose Siltstone, fine to coarse, buff, offwhite, pink, pink-brown. Coal.
5660 - 5670'	10% 90%	Sand, fine to medium offwhite, semi-consolidated and coarse unconsolidated, quartzose Siltstone, as above
5670 - 5680'	90% 10% Tr.	Sand, verycoarse, subangular, unconsolidated. Sandstone, fine to medium grained, offwhite, friable Pyrite
5680 - 5690'	100% Tr. Tr.	Sand, very coarse, as above Sandstone, as above Pyrite
5690 - 5700'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite, as above
5700 - 5710'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite as above

6280 - 6290'	100% Tr. Tr.	Sand, very coarse, pebbly, unconsolidated Lithics, as above Siltstone, reddish brown, very carbonaceous
6290 - 6300'	50% 40% 10% Tr.	Sand, as above Siltstone, as above Coal Pyrite and lithics
6300 - 6310'	100% Tr.	Sand, as above Siltstone, pyrite and lithics as above
6310 - 6320'	100%	Sand as above
6320 - 6330'	80% 20% Tr.	Sand, as above Siltstone, as above Pyrite, and lithics
6330 - 6340'	70% 30%	Sand, as above Siltstone, as above
6340 - 6350'	80% 20%	Sand, as above Sandstone, offwhite, grey, buff, dolomitic, fine to medium grained.
6350 - 6360'	30% 70%	Sandstone, buff to light grey moderately hard, dolomitic cement, fine to coarse, poorly sorted, subangular - angular, abundant lithics, rare mica. Sand, white clear to milky, unconsolidated, coarse to very coarse, angular, some pyrite in filled fractures lithic, chert fragments common, trace of brown siltstone
6360 - 6370'	50% 50%	Sand, as above Sandstone, as above
6370 - 6380'	50% 50%	Sand, as above Sandstone, as above
6380 - 6390'	60% 40%	Sand, quartzose, granules, poorly consolidated subangular, clear to milky Sandstone, medium grained, poorly sorted, grey offwhite, dolomitic cement, moderately hard, carbonaceous specks.
6390 - 6400'	50% 50%	Sand, as above Sandstone, grey offwhite, medium to fine grained, compact, brittle carbonaceous streaks.
6400 - 6410'	100%	Sand, as above
6410 - 6420'	80% 20%	Sand, as above Sandstone, clear to offwhite, quartzose loosely cemented, brittle, medium to coarse, dolomitic cement, poorly sorted.
6420 - 6430'	70% 30%	Sand, as above Sandstone, as above plus grey, fine to medium grained, compact.
6430 - 6440'		Same as above - 70% sand, 30% dolomitic sandstone. Increase in number and variety of quartzitic lithics (chert, petrified wood etc).

5710 - 5720'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite, as above
5720 - 5730'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite
5730 - 5740'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite
5740 - 5750'	100% Tr. Tr.	Sand, as above Sandstone, as above Pyrite
5750 - 5760'	50% 50%	Sand, as above Coal, black to brownish-black, subconchoidal fracture occasionally pyritic
5760 - 5770'	90% 10% Tr.	Sand, as above Sandstone, quartzose, fine, poorly consolidated pinkish brown. Pyrite (up to 5%)
5770 - 5780'	90% 10% Tr.	Sand, as above Sandstone, as above Pyrite
5780 - 5790'	90% 10% Tr.	Sand, quartzose, clear to milky Sandstone and Mudstone, as above Pyrite
5790 - 5800'	90% 10% Tr.	Sand, as above Sandstone and Mudstone, as above Pyrite
5800 - 5810'	100% Tr.	Sand, as above Pyrite
5810 - 5820'	100% Tr.	Sand, as above Pyrite
5820 - 5830'	90% 10% Tr.	Sand, as above Sandstone, fine, pinkish brown and siltstone Pyrite
5830 - 5840'	100% Tr.	Sand, as above Pyrite
5840 - 5850'	100% Tr.	Sand, very coarse, unconsolidated - as above Pyrite
5850 - 5860'	100% Tr.	Sand, as above Pyrite
5860 - 5870'	100% Tr.	Sand, as above Pyrite
5870 - 5880'	100%	Sand, as above
5880 - 5890'	100%	Sand, as above
5890 - 5900'	100%	Siltstone, pink to reddish-brown with carbonaceous streaks - grades into fine grained pink to reddish sandstone.

6440 - 6450'	90% 10%	Sand, as above, with prominent lithic granules Sandstone, medium to coarse grains, angular, friable
6450 - 6460'	100% Tr.	Sand, as above (some decrease in lithic granules) Siltstone
6460 - 6470'	90% 10%	Sand, as above Sandstone, as above
6470 - 6480'	90% 10%	Sand, as above Sandstone, as above
6480 - 6490'	90% 10%	Sand, as above Sandstone, clear, fine to medium grained, quartzose with 1% lithic granules.
6490 - 6500'	90% 10%	Sand, as above Sandstone, as above
6500 - 6510'	90% 10%	Sand, very coarse, angular, unconsolidated with numerous siliceous lithic fragments Sandstone, medium to coarse grained, poorly cemented. angular, buff to grey
6510 - 6520'		Same, sand 90% and sandstone 10% as above.

T.D. 6520 feet

APPENDIX 2

INTERPRETATION OF ELECTRICAL LOGS

Schlumberger Seaco Inc.

(INCORPORATED IN PANAMA)

MAIDSTONE HOUSE
26 BERNERS STREET
LONDON, W.1

PLEASE REPLY TO:
AUSTRALIA DIVISION OFFICE
SCHLUMBERGER SEACO INC.
9th FLOOR, IBM CENTRE
168 KENT STREET
SYDNEY. 2000

PHONE: 27-7429

CABLE:
"SCHLUMBERGER", SYDNEY.

TELEX:
SCHLUMB AA23053

7th December, 1971.


Planet Oil Company N.L.
United Insurance Building
Cnr. George & Hunter Streets
SYDNEY N.S.W. 2000

Attention: Mr. G. Congdon

Dear Mr. Congdon,

Attached are my interpretation comments
on the well logs of Flying Fish No 1.
I believe they are straight forward and will
be happy to discuss them with you whenever
you wish.

Yours very truly,
Schlumberger Seaco, Inc.



Hugh Crocker

HC/HZ
Attach:

WELL LOG INTERPRETATION - FLYING FISH 1

LOGS AVAILABLE

Laterolog	2504'	-	6520'
Proximity/Microlog	2505'	-	6522'
Compensated Density Gamma Ray	2504'	-	6523'
Induction Electrical Log	2504'	-	6523'

BOREHOLE FLUIDS

Freshwater Gel Lignosulphonate Mud

Rm = 0.77 at 96°F or 0.70 at 105°F or 0.50 at 145°F.
 Rmf = 0.60 at 74°F or 0.43 at 105°F or 0.31 at 145°F.
 Rmc = 1.38 at 74°F or 1.0 at 105°F or 0.75 at 145°F.

GENERAL

Readings have been taken opposite zones showing; low gamma ray reading; good positive separation on the microlog; and developed S.P. These zones should correspond to permeable porous clean formations which may be of interest. Charts referred to are those of the 1969 Chartbook.

FORMATION WATERS

The S.P. is positive throughout the log indicating that formation waters are fresher than the mud filtrate (9300 p.p.m NaCl.). The S.P. is about +35 mv throughout except below 6000' when it is reduced to +25 mv, it therefore seems probable that we have fresh formation waters of more or less constant salinity. In this range the S.P. may not be used quantitatively to determine Rw since this depends upon the actual salts

in solution in the formation water.

The resistivity tools also show that R_T is greater than R_{xo} and therefore confirm that formation waters are fresh.

THE INVADED ZONE

Since formation water resistivity is unknown let us first consider the conditions in the mud filtrate invaded zone where the principal fluid present should be mud filtrate ($R_{mf} = 0.37$).

Figure 1 is a crossplot of microlaterolog RMLL versus bulk density (ρ_B). A good trend is developed which gives a matrix density of 2.65 g/cc which is suitable for sands and a slope corresponding to a fluid resistivity of 0.37. Hence this plot shows that this approach gives good fluid resistivities.

SATURATIONS

It is clear that $R_T > R_{xo}$ and therefore that $R_T > R_{LL}$ or R_{IL} hence if we use the maximum value of resistivity it will be a lower limit of R_T . Hence we have crossplotted R_{max} against ρ_B in Figure 2. An upper trend gives $R_w = 3.5$ and this appears to cover the range of all points. It may well be that this line is set too high because $R_{max} < R_T$ but it is probable that similar invasion diameter applies for all permeable zones and is therefore comparatively uniform in effect. Hence we shall use $R_w = 3.5$ for purposes of computing saturations and $R_{max} = R_T$.

On the grid of Figure 2 we have built a scale of water saturations (S_w) and the best water saturations are shown as 70%. Allowing for errors of ρ_M and R_w this is probably optimistic and undoubtedly

would produce only water - perhaps some residual hydrocarbons are present.

Another approach is to plot R_{xo} versus R_t .
In water zones

$$R_t = F R_w$$

and in the flushed zone

$$R_{xo} = F R_{mf}$$

Hence
$$R_{xo}/R_t = R_{mf}/R_w.$$

If hydrocarbons are present then R_t is increased proportionately more than R_{xo} hence

$$R_{xo}/R_t < R_{mf}/R_w$$

In Figure 3 we have made this crossplot and a good trend is developed giving $R_{xo}/R_t = 10$ and if $R_{mf} = 0.37$ then $R_w = 3.7$ which agrees well with the value from Figure 2. Some points fall below the trend but these probably represent tight or shaly points where R_{xo} tends towards R_t . Only point number 17 falls significantly above the line where hydrocarbons might be expected to fall. If we write:

$$\text{Log } R_{xo}/R_t = \text{Log } R_{mf}/R_w + 1.6 \text{ Log } S_w$$

then this gives $S_w = 70\%$ for point 17, which is similar to that found from the other approach. Again some residual hydrocarbons may be present and only water production should be anticipated.

UPPER INTERVAL 3600' - 3800'

This interval plots somewhat differently and Figure 4 is the corresponding f_B versus R_t plot


giving $R_w = 2.3$ which is significantly less than for the lower intervals. In all probability this water is more saline than the lower intervals and no hydrocarbons are indicated. Similarly Figure 5 is the crossplot of R_{xo} versus R_T and this confirms the previous interpretation.

POROSITY

Using $\rho_M = 2.65$ we have computed porosity values from the density log reading.

CONCLUSIONS

1. No significant hydrocarbons are found.
2. Good porous sands are present.
3. Formation waters are very fresh at about 800 p.p.m. NaCl.



HUGH CROCKER

7th December, 1971.

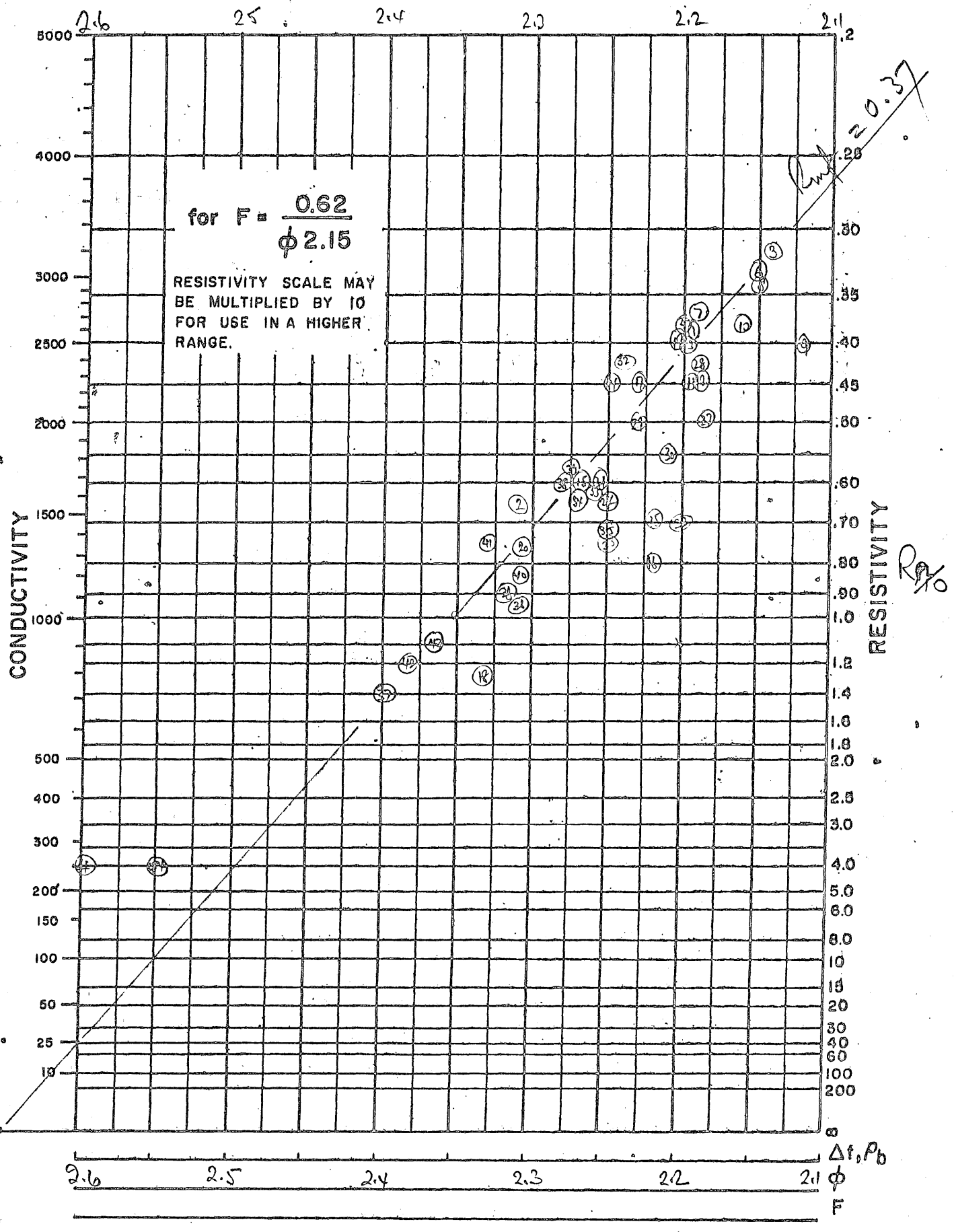
HC/HZ
Attach:

INTERPRETATION OF: FLYING FISH 1

	Depth	R _{LL}	R _L	R _{IL}	R _A	SP.	P _B	G-Ray	R _{oo} /R _T
1	3622	17	11	20 [✓]	3.8	+35	2.19	22	0.19
2	3682	36	16	43 [✓]	6.5	+37	2.31	14	0.15
3	3715	19 [✓]	13.5	—	3.2	+38	2.14	13	0.17
4	3726	300 [?]	28	>200	4.0	+40	2.6	10	✓
5	3740	22 [✓]	13	20	3.8	+38	2.2	11	0.17
6	3790	20	20	25 [✓]	3.6	+41	2.15	12	0.15
7	3814	43 [✓]	22	38	3.7	+40	2.19	13	0.085
8	3892	28 [✓]	16	25	3.4	+37	2.15	11	0.12
9	3954	40 [✓]	22	20	4.0	+30	2.12	22	0.1
10	4050	34 [✓]	20	20	3.8	+25	2.16	14	0.11
11	4172	39 [✓]	18.5	36	4.5	+28	2.19	17	0.11
12	4190	36 [✓]	17	36	4.5	+26	2.18	18	0.12
13	4220	40 [✓]	19	40	4.0	+28	2.2	20	0.1
14	4241	50 [✓]	22	50	4.5	+27	2.25	17	0.09
15	4260	48 [✓]	22	50 [✓]	6.0	+28	2.27	15	0.12
16	4390	60 [✓]	23	55	8.0	10	2.22	16	0.13
17	4460	90 [✓]	26	90	5.0	+35	2.23	12	0.05
18	4482	80 [✓]	32	75	13	+32	2.33	13	0.16
19	4563	65 [✓]	22	45	4.0	+30	2.2	23	0.06
20	4604	60 [✓]	27	65 [✓]	7.5	—	2.31	17	0.12
21	4722	64 [✓]	23	55	?11.0	+37	2.2	18	✓
22	4775	75 [✓]	26	70	7.0	+38	2.2	17	0.095
23	4815	85 [✓]	27	60	7.5	+30	2.25	23	0.09
24	4874	50 [✓]	25	50	6.5	+40	2.25	18	0.13
25	4925	75 [✓]	28	80 [✓]	7.0	+36	2.22	17	0.145

Abiotic

RESISTIVITY VS POROSITY

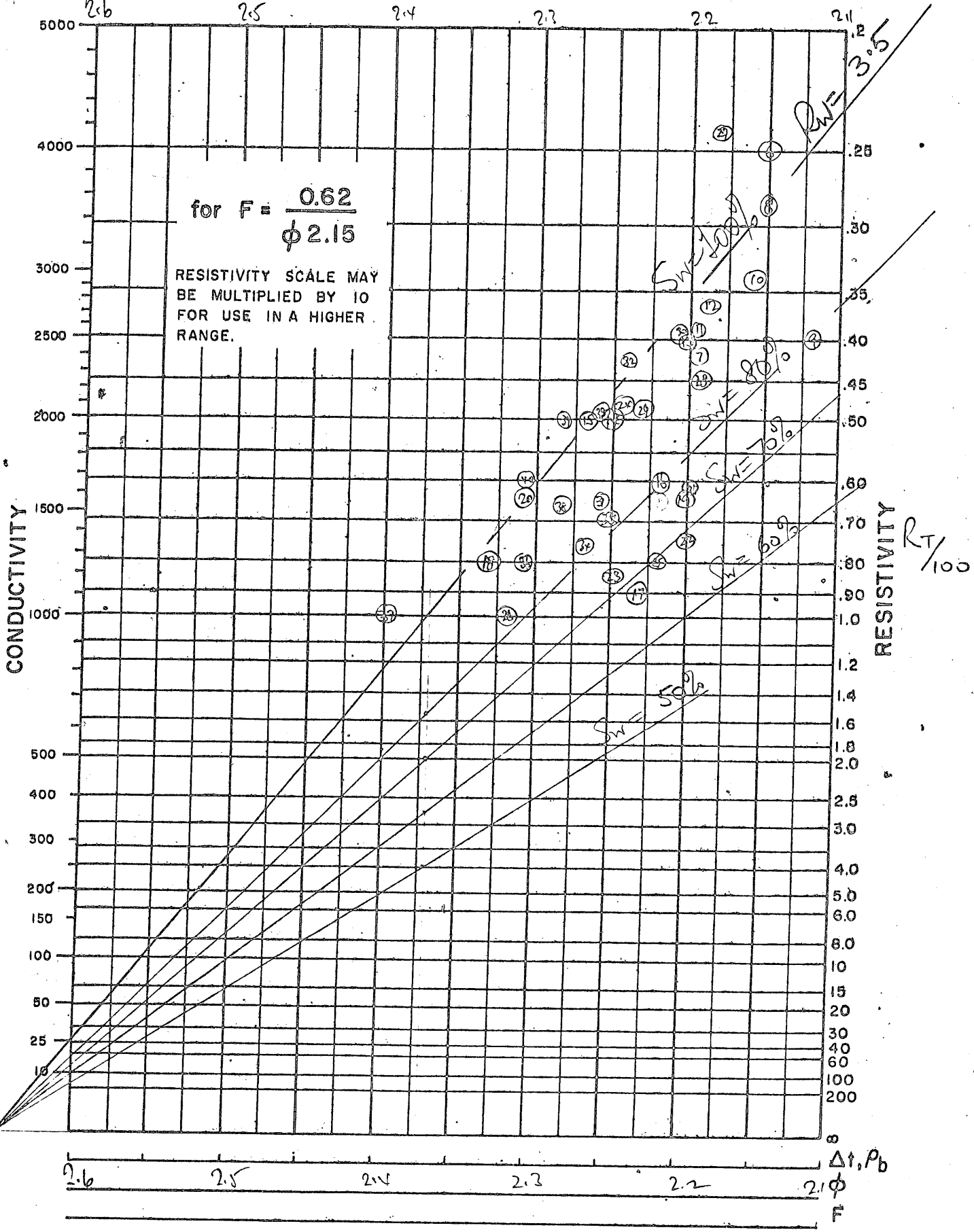




FLYING FISH 1

Fig 2.

RESISTIVITY VS POROSITY

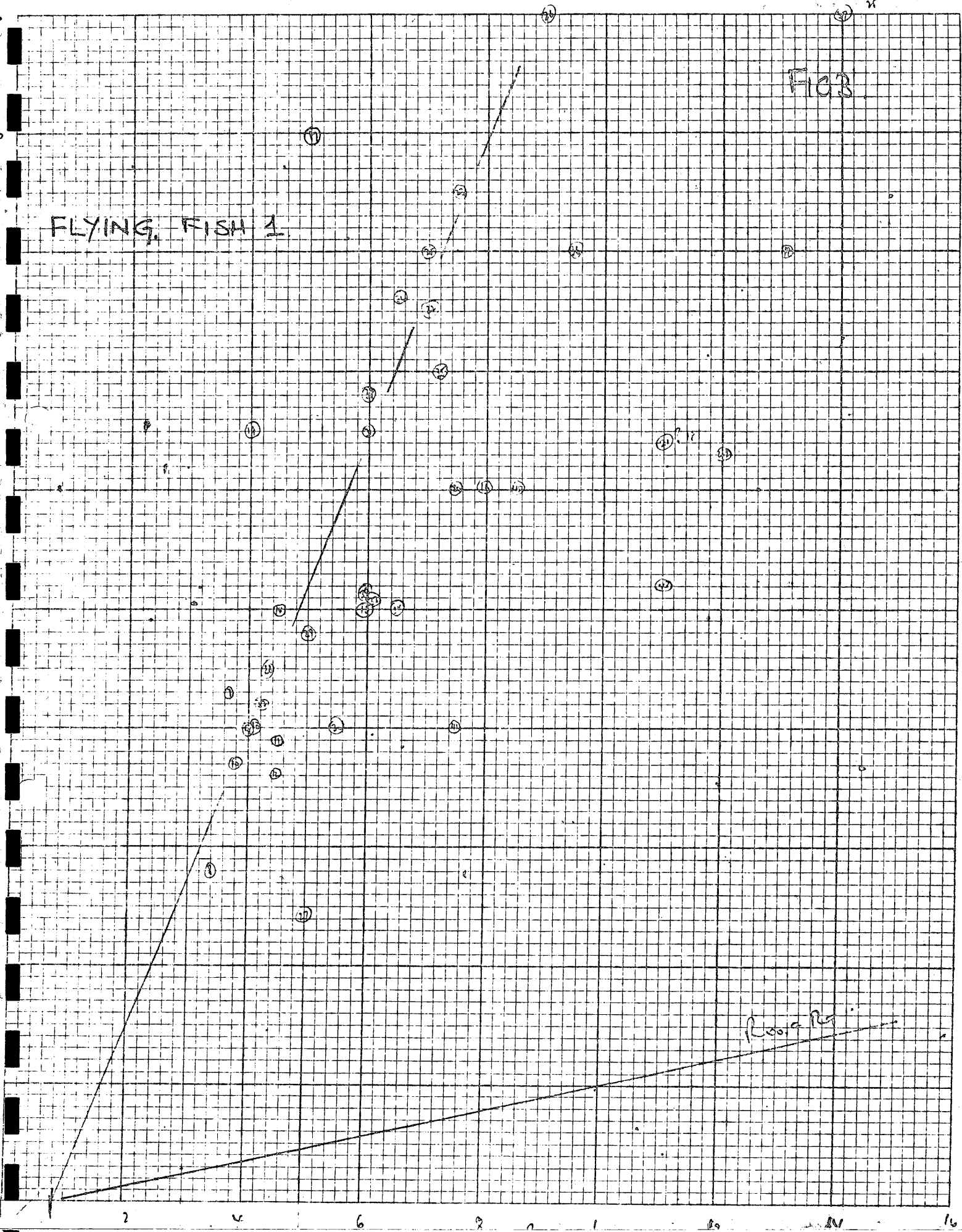


FLYING FISH 1

Fc3

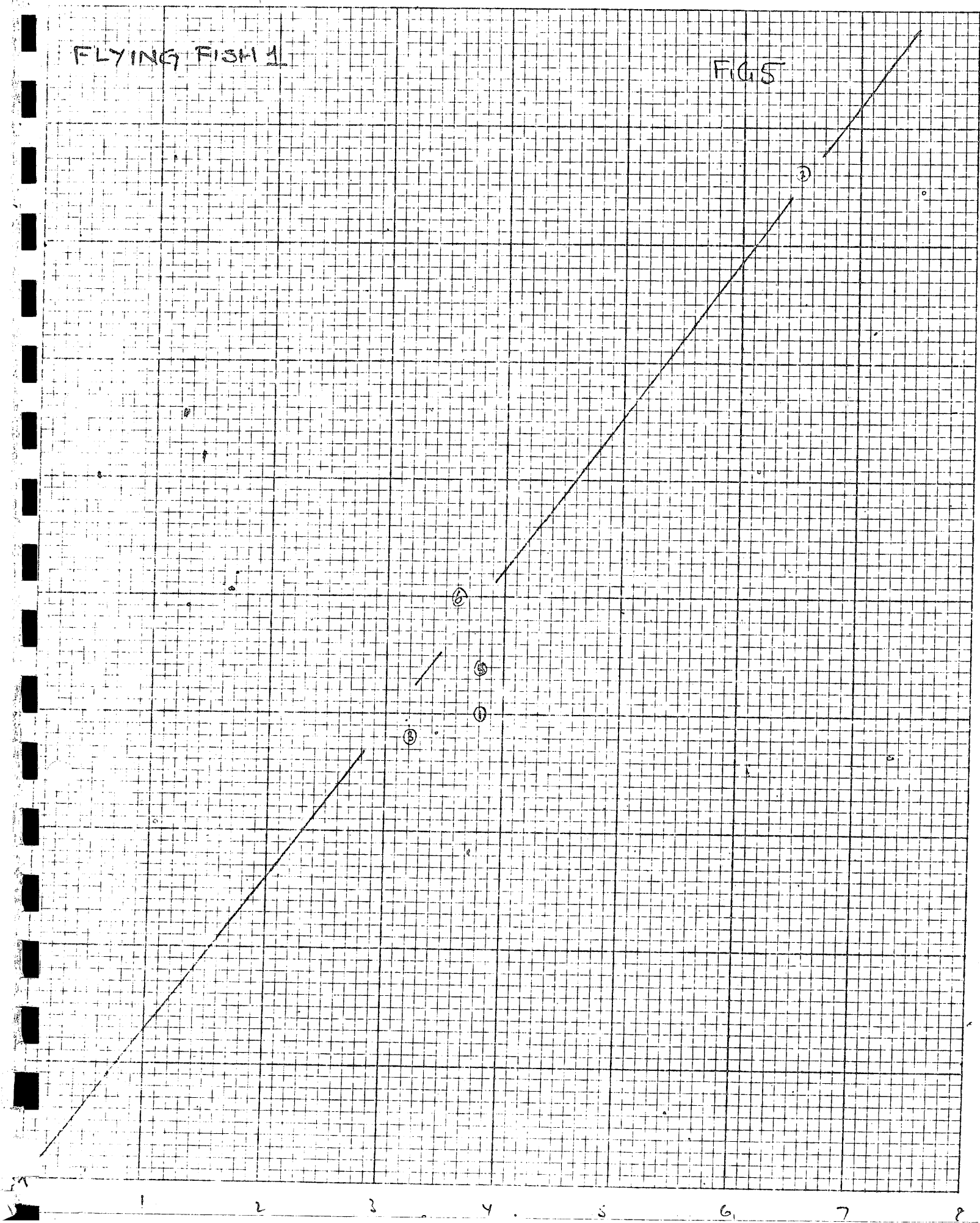
200.0 Pa

2 4 6 8 10 12 14 16



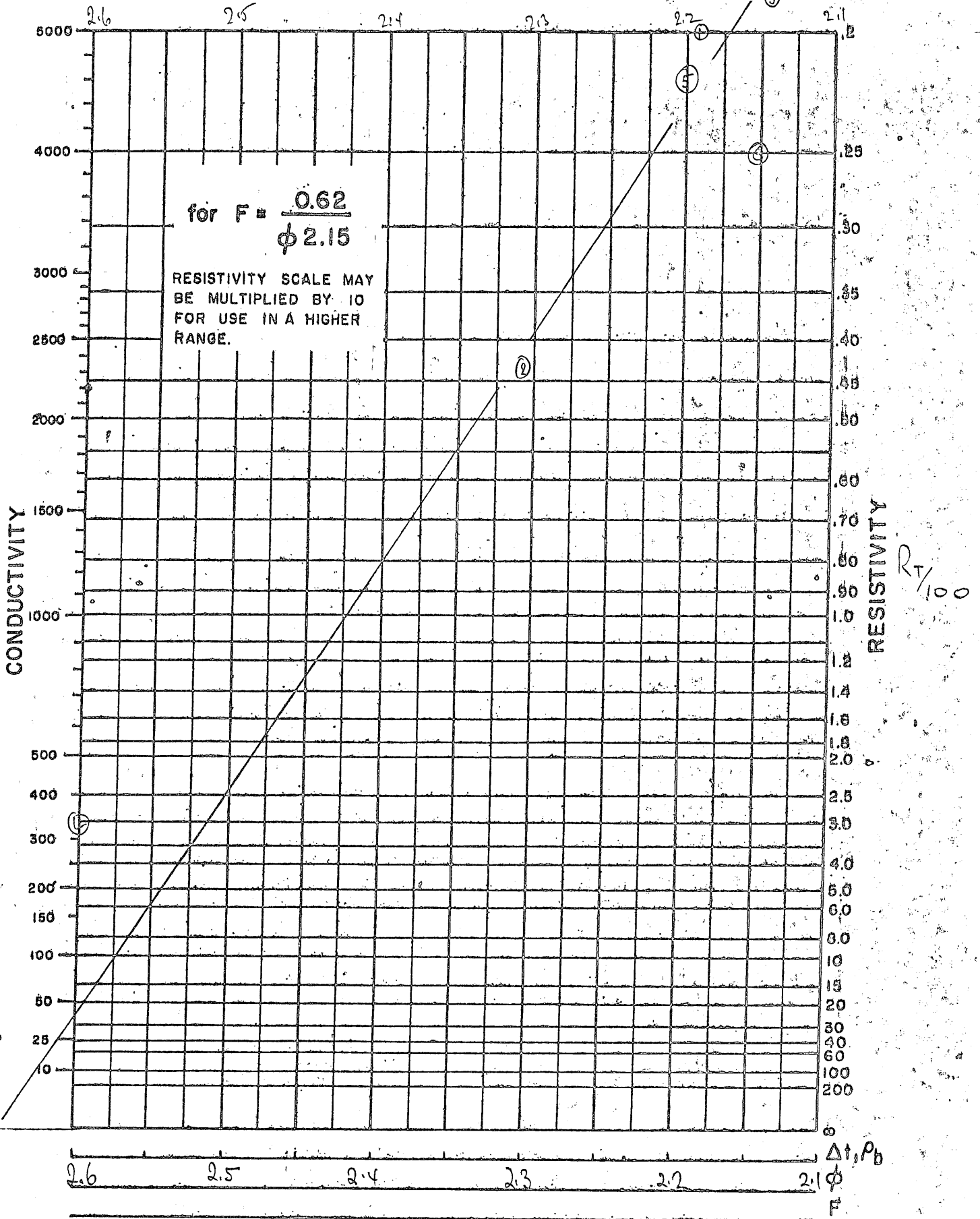
FLYING FISH 1

FIG 5



RESISTIVITY VS POROSITY

FIG 4



PE902793

This is an enclosure indicator page.
The enclosure PE902793 is enclosed within the
container PE902792 at this location in this
document.

The enclosure PE902793 has the following characteristics:

- ITEM_BARCODE = PE902793
- CONTAINER_BARCODE = PE902792
 - NAME = Location Map
 - BASIN = GIPPSLAND
 - PERMIT =
 - TYPE = GENERAL
 - SUBTYPE = PROSPECT_MAP
- DESCRIPTION = Flying Fish-1 Location Map. Enclosure 1
of WCR.
- REMARKS =
- DATE_CREATED = 31/03/1972
- DATE_RECEIVED =
 - W_NO = W639
 - WELL_NAME = Flying Fish-1
 - CONTRACTOR = NSW Oil & Gas Co
 - CLIENT_OP_CO = NSW Oil and Gas Co NL

(Inserted by DNRE - Vic Govt Mines Dept)

PE902794

This is an enclosure indicator page.
The enclosure PE902794 is enclosed within the
container PE902792 at this location in this
document.

The enclosure PE902794 has the following characteristics:

ITEM_BARCODE = PE902794
CONTAINER_BARCODE = PE902792
NAME = Seismic Reflection Two Way time
interval Structure Map Latrobe Coal
Measures
BASIN = GIPPSLAND
PERMIT =
TYPE = SEISMIC
SUBTYPE = HRZN_CONTR_MAP
DESCRIPTION = Seismic Reflection Two Way time
interval Structure Map Latrobe Coal
Measures. Enclosure 2 of WCR.
REMARKS =
DATE_CREATED = 01/09/1971
DATE_RECEIVED =
W_NO = W639
WELL_NAME = Flying Fish-1
CONTRACTOR = NSW Oil & Gas Co
CLIENT_OP_CO = NSW Oil and Gas Co NL

(Inserted by DNRE - Vic Govt Mines Dept)

PE603280

This is an enclosure indicator page.
The enclosure PE603280 is enclosed within the
container PE902792 at this location in this
document.

The enclosure PE603280 has the following characteristics:

ITEM_BARCODE = PE603280
CONTAINER_BARCODE = PE902792
NAME = Induction-Electrical Log
BASIN = GIPPSLAND
PERMIT = VIC/P8
TYPE = WELL
SUBTYPE = COMPLETION_LOG
DESCRIPTION = Flying Fish 1 Induction-Electrical Log
(Well Completion Log)with Interpretive
Lithology. Enclosure 3 of WCR.
REMARKS =
DATE_CREATED = 29/11/71
DATE_RECEIVED =
W_NO = W639
WELL_NAME = Flying Fish-1
CONTRACTOR = Schlumberger
CLIENT_OP_CO = NSW Oil & Gas Co. N.L.

(Inserted by DNRE - Vic Govt Mines Dept)

PE601453

This is an enclosure indicator page.
The enclosure PE601453 is enclosed within the
container PE902792 at this location in this
document.

The enclosure PE601453 has the following characteristics:

ITEM_BARCODE = PE601453
CONTAINER_BARCODE = PE902792
NAME = Corelab Grapholog Mudlog
BASIN = GIPPSLAND
PERMIT =
TYPE = WELL
SUBTYPE = MUD_LOG
DESCRIPTION = Corelab Grapholog Mudlog. Enclosure 4
of WCR.
REMARKS =
DATE_CREATED = 28/11/1971
DATE_RECEIVED =
W_NO = W639
WELL_NAME = Flying Fish-1
CONTRACTOR = Core Laboratories Inc.
CLIENT_OP_CO = NSW Oil and Gas Co NL

(Inserted by DNRE - Vic Govt Mines Dept)

PE904939

This is an enclosure indicator page.
The enclosure PE904939 is enclosed within the
container PE902792 at this location in this
document.

The enclosure PE904939 has the following characteristics:

ITEM_BARCODE = PE904939
CONTAINER_BARCODE = PE902792
 NAME = Rate of Penetration Log
 BASIN = GIPPSLAND
 PERMIT = VIC/P8
 TYPE = WELL
 SUBTYPE = DIAGRAM
DESCRIPTION = Flying Fish 1 Rate of Penetration Log.
 Enclosure 5 of WCR.
REMARKS =
DATE_CREATED = 29/11/71
DATE_RECEIVED =
 W_NO = W639
 WELL_NAME = Flying Fish-1
CONTRACTOR =
CLIENT_OP_CO = NSW Oil & Gas Co. N.L.

(Inserted by DNRE - Vic Govt Mines Dept)